



Financing Energy Access for the Last Mile: Bangladesh Experience

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Initial Challenges at the beginning 1996

- We have successfully faced the weathered threat of Global financial crisis , hoping to become a middle income by 2021
- More than 85% of our rural people had no access to modern clean energy
 - Technology was Expensive
 - Lack of awareness and policy support
 - No financial model
- Under-employment in rural areas except during harvest
- Lack of skilled manpower



We need to climb the energy ladder to develop economically and socially without damaging the environment.

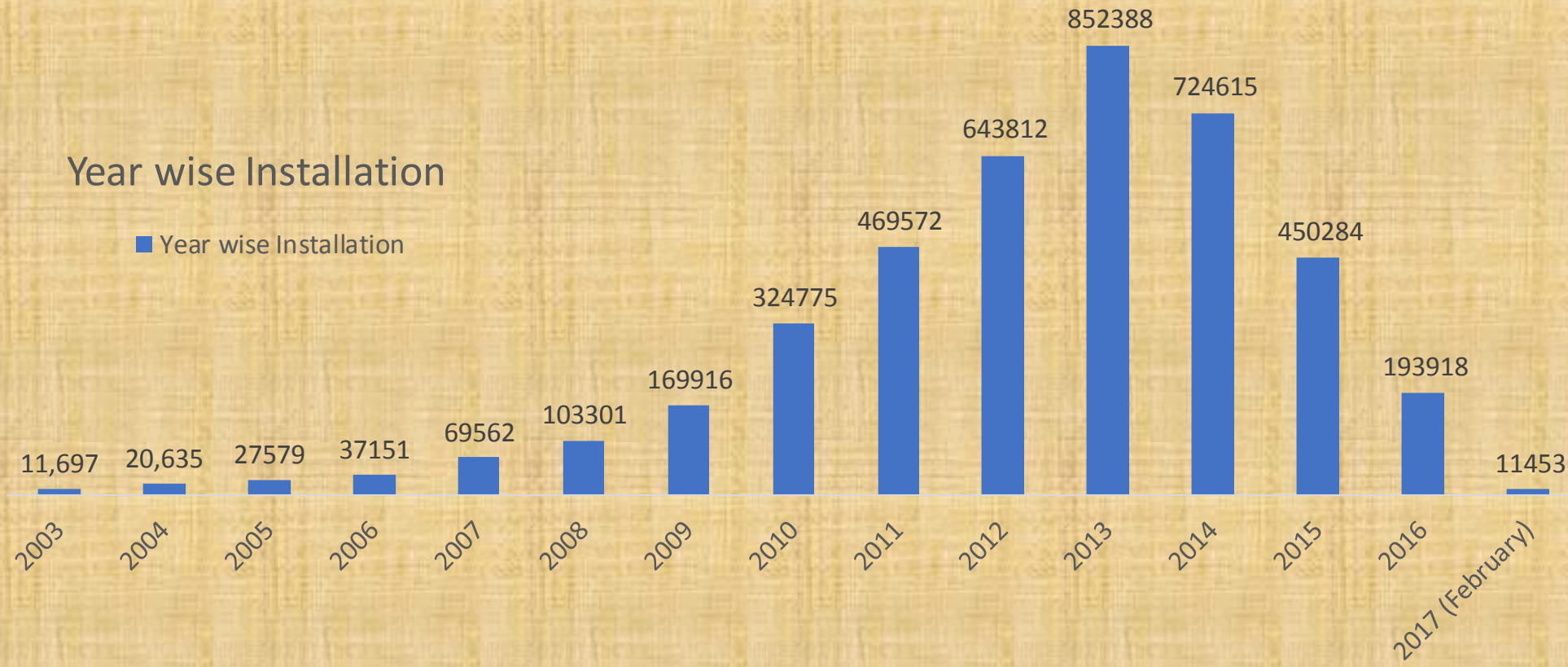
The Beginning

Journey Towards a Green Energy Revolution



- **Energy Poverty**, is one of the main hurdles facing rural people .
- Green Energy to the rural people with a **innovative monthly installment based financial model** at the price of kerosene to provide better livelihood and more Income.
- **Awareness and training** programs were designed.
- Bangladesh enjoys **year round sunshine** (over 300 Days per year)
- Started with **Solar Energy** and designed different Solar Home System packages at a affordable price.
- **Quality Product** was ensured
- **Network of branches** to take the service at clients doorstep was established.

Solar Home System Installed till February 2017



Source: IDCOL

Solar Power in Bangladesh



Over 4.5 million Solar Home Systems have been installed benefiting more than 25 million rural people

- **Bangladesh Solar Home System model has become internationally recognized as the world largest solar program**
- **Cost effective and affordable, low maintenance, highly flexible, clean lightings – Solar Energy is very suitable for our situation.**

Our Achievements

- An innovative financial mechanism reducing cost to monthly kerosene use
- Rural level assembly, repair & maintenance of solar home system to ensure after sale service
- All components produced locally & Supply and quality product network is established
- Over 100,000 new jobs were created
- Green Technology Centers (trained 5000 rural women)
- Extended working hour for better economic condition and income generation
- Better future for children
- VAT / Tax removed off solar panels
- Ownership model
- Carbon emission reduction
- Foreign currency save (fossil fuel import reduce)
- Solar Home System is socially accepted all over the country



School children studying better
under Solar clean Light

Bridging the Gap

An Innovative Financial Package was designed



It was required to develop a cost effective package which could provide better alternative than kerosene and efficient lighting .

We focused on two key aspects :

- **The Challenge** : High upfront cost which most rural people could not afford.
- **The Value** : Very little operating cost, energy autonomy / ownership, bright light without smoke or fire hazards , power for TV/ radios/Mobile Phone etc, **Energy for 20 years, at a affordable range.**

At the Beginning

50% down payment to install the system and remaining **50%** in **6** monthly installments.

After few years of Experience

25% down payment to install the system and remaining **75%** in **24** monthly installments.

Present Situation

15% down payment to install the system and remaining **85%** in **12/24/36** monthly installments.

Success of Solar Home System in Bangladesh, ignited the diversification of solar energy use

- Solar Irrigation Pumps
- Solar Street Lights
- LED energy efficient lightings
- Mini & Micro Grids
- Micro-utility Grid (energy Sharing)
- Rooftop (Grid Tie) Solar System
- Arsenic water treatment plant



To reach very Remote & Poor Community of the society

- **Jobs at local level to be created**
- **Local Capacity need to be build-up**
 - **Training programs (Skill Man Power)**
 - **Awareness Program**
- **Designing Cost effective Technology (small SHS system packages 20/30 watt with LED)**
- **Technical training to build technical capacity at the community level**
- **Women entrepreneurship need to be introduced**
- **Need financial & special support from the government (KABITA/TR Bangladesh)**
- **Local production of charge controller, battery, invertor and other required equipment's.**
- **Avail soft financial support with a policy from Central Bank (Bangladesh Bank) with local banks**
- **Financial & Policy support from the government to reach the last mile**



Thank You for your Kind Attention